

The instant greenhouse

© By Jj Fallick

When we lived in town we spent several hundred dollars, nearly a year, and lots of hassles with the building inspector to build a greenhouse addition to our home. It worked fine.

We now live in the country and our huge garden called for another greenhouse for growing seedlings and extending the season in our northland location. This time we didn't have the bucks or the time to spend on a major project. Since we live in an owner-built home that's not to code, I didn't need building inspector hassles, either. Thus we designed the "instant green-

house." It is a low cost, temporary structure that we attach to the southern wall of our house each spring. It doesn't even require any construction skills.

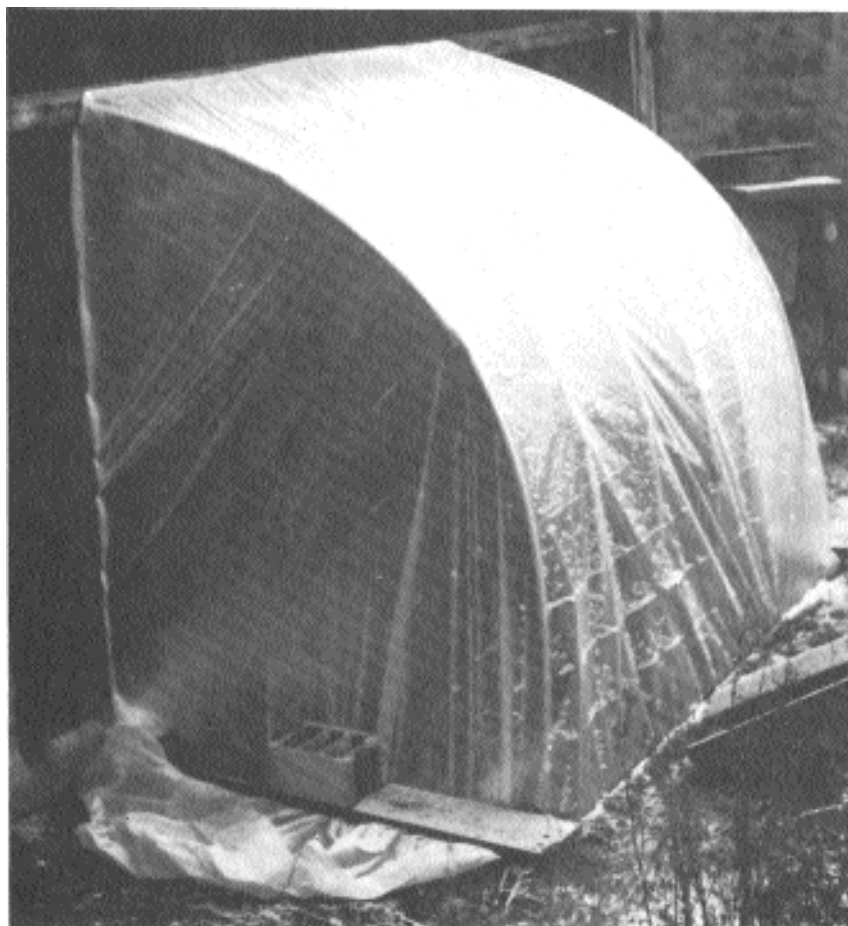
Drill holes in the 2x4 and one of the 2x8s, 18 inches apart. Make the first and last holes within a couple of inches of the ends of the boards and center all the holes on the two-by's. If you don't measure very exactly, don't worry...this is not a "picky" project. Now nail the 2x4 to a south-facing wall, 8 feet up. Lay the 2x8 on the ground, parallel to the wall and about 8' away. Insert one end of the 12' pipes in the overhead holes and the other end in the corresponding holes in the ground. It may take several tries to hit the overhead holes, but I man-

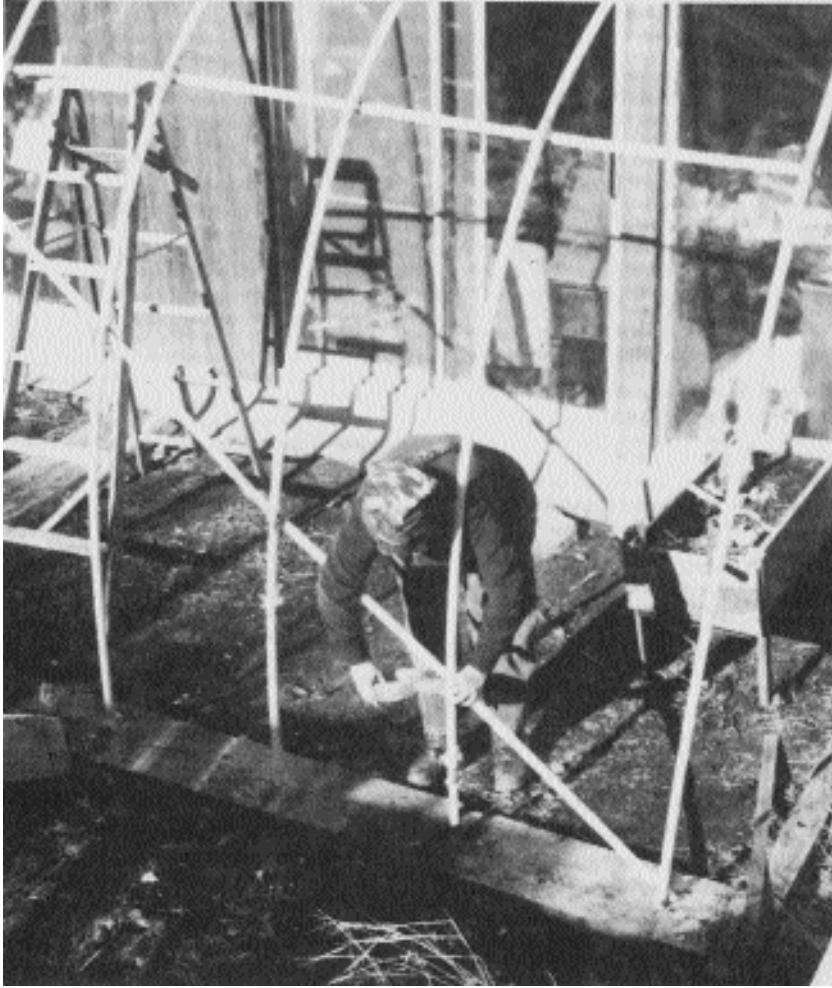
age it and I'm only 5' tall. The pipes will bend gently. You may need to add weights to hold the ground board in place as you install the pipes. You can adjust the location of the ground board to give you more ground area in the greenhouse, but this will require a longer roll of plastic. Likewise, you can add more sections, making your greenhouse as long as you want.

The greenhouse won't be stable until you duct tape the reinforcements horizontally and diagonally across the greenhouse ribs to prevent "racking." (Photo). The 8' pipe is your horizontal reinforcement and the 12 footer gets taped diagonally.

Next, attach the plastic covering. This is best done with two people, one on the ladder nailing and the other positioning and straightening the plastic from the ground. Measure the width of your greenhouse and unroll that much plastic to hang down on the end where you begin. Allow a little extra for folding. I find it best to mark indelibly on the plastic how much to let hang over, otherwise you come out short and either have to patch or the greenhouse won't close (more about that later.)

As you unroll the plastic across the top of the greenhouse you will attach it to the front of the 2x4. I attach the plastic by rolling it around a lath or cardboard strip for reinforcement and nailing the "sandwich" in place with short roofing nails. The large heads minimize tearing and are easy to hit. Be careful not to hit the plastic, as this can weaken it. Work your way across the greenhouse, rolling and nailing. When you get to the end you will have another 8' plus of plastic hanging down on that end as well. Now tuck the plastic firmly but gently under the weighted ground board. You won't be able to eliminate all wrinkles, but the smoother your greenhouse skin, the less likely it is to tear in the wind. Lay your other 2x8's on the ground, inside or outside of the greenhouse and tuck under the end plastic, smoothing out the fullness. Some of the extra plastic will gather under these boards, the rest you will gather and nail to the wall (photos). You will gather and roll the plastic here as well, reinforcing with lath





Place pipes into holes in 2 x 4 on wall and 2 x 8 on ground.

or cardboard. You have LOTS of extra bulk here and can trim off the excess if you are careful not to cut too much.

If you accidentally miscalculated and the plastic does not reach to the wall on one side, you can use the extra (trimmed from the other end) to patch. I roll the two pieces of plastic together (like a flat-fell seam) and stitch by hand through the rolled plastic with a darning needle and cotton twine. Then continue attaching the plastic to the wall with gentle pulling. I have tried taping the plastic in the past but find that this sewn, rolled seam really does hold better!

Locate your greenhouse on a wall that has a door or other point of access from the house and you can nail down both ends from the inside, as above. If your south-facing wall has no door, you will have to make one in the end

of your greenhouse. Use a long lath, old piece of molding or other 6' long strip of wood for the reinforcement/stiffener in your door end. Don't pound the nails in all the way and keep a hammer handy so you can quickly pull the nails loose for entry into the greenhouse.

When the days get hot, and the greenhouse begins to overheat, pull the nails from both ends and open them for ventilation. I usually just tuck the ends in place at night once the season warms up, as the protected location next to the house moderates the night temperatures. This is an excellent unheated greenhouse or large "cold frame." If you locate it over a door or window facing a heated building you can increase it's usefulness. Open the window during the day for solar house heating; leave it open at

night and heat from the house warms the plants. You will want a thermometer in the greenhouse to monitor the temperature. A max-min thermometer is the best, but even a normal household one, checked often, will do.

One drawback of this structure is that it is not strong enough to stand up to heavy snow. I wait to assemble it until the worst of the snow season is over. During the off-season it stores easily. I hang the pipes under the eaves of my house and roll the plastic for storage in a dark cellar. This way I can get two seasons of use from each roll of plastic.

I do feel bad about using so much plastic but do my best to recycle the pieces as they wear out and tear. By the third season, the greenhouse "skin" is serving as lining for cardboard and wooden planting flats, indoor nursery boxes for various "critters" and countless other homestead jobs that call for a random piece of plastic.

The instant greenhouse is a practical, low-cost alternative to commercial greenhouse packages. My country neighbors include an organic truck farmer who has used the instant greenhouse in his business for several years. What works so well for us can get you "up and growing" too. Δ

Materials list for the 8-foot greenhouse

- 6 sections 1" PVC pipe 12' long @ \$.24 a ft. \$17.28
- 1 section 1" PVC pipe 8' long @ \$.24 a ft. \$1.92
- 1-8' 2x4 \$1.65
- 3-8' 2x8's \$13.50
- 1 roll plastic 15'x25' \$4.69
- 1 roll duct tape \$4.59
- ¼ lb. roofing nails; 5 or 6 16d sinkers \$1.00
- lath or cardboard strip reinforcements
- cement blocks or other weights
- total \$44.69

Tool list

- Drill (or brace and bit) with bit just over 1"
- hammer
- stepladder